

**Remarks:****A. Status of the Claims**

Claims 18-34 were pending at the time of the Action. No amendments to the claims have been made. Therefore, claims 18-34 are currently pending.

**B. Summary of a Telephonic Interview with the Examiner**

In a telephone conversation on December 1, 2004, between the Examiner and Applicants' Representative, Michael R. Krawzsenek, the Examiner agreed to remove the finality of the present Action. The Examiner requested that a Request to Remove Finality of the Office Action be filed along with this response to the Action. An appropriate Request is being filed along with this paper. Therefore, Applicants request that the finality of the Action be withdrawn.

**C. The Obviousness Rejection Is Overcome****1. Summary of the Rejection**

The Action rejects claims 18-34 under 35 U.S.C. § 103(a) as being obvious over statements made in Applicants' specification at page 1, line 7, to page 2, line 11, in view of U.S. Patent No. 4,376,751 to Duchane. The Action contends that Applicants' specification "teaches that the instant successive steps of grinding, fine grinding and polishing are well known in the art and are indeed applied to optical articles such as lenses." The Action, page 2. It is admitted by the Action, however, that that "the admitted prior art fails to teach that the final mechanical steps of the grinding—i.e., the fine grinding and/or the polishing—would be replaced with an attack of the principal surface of the article with a solvent or mixture of solvents." *Id.*

In an effort to supplement the present obviousness rejection, the Action cites to Duchane and contends that it discloses "obtaining super smooth plastic surfaces for optical articles

including lenses by **doing exactly that**—ie [sic], attacking the plastic surface with a solvent.” *Id.* (emphasis not added). From this, the Action concludes that there is a motivation to combine Duchane with conventional surface polishing to reduce equipment costs and to obtain an even smoother surface that would be attainable using mechanical means.

## **2. Standard for Establishing a *Prima Facie* Case of Obviousness**

It is well settled that “[t]he examiner bears the initial burden of factually supporting any *prima facie* case of obviousness. If the examiner does not produce a *prima facie* case, the applicant is under *no* obligation to submit evidence of nonobviousness.” *Manual of Patent Examining Procedure* (MPEP) § 2142 (8th Ed. Inc. Rev. No. 1) (emphasis added).

To establish a *prima facie* case of obviousness, the Action must show: (1) some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings; (2) a reasonable expectation of success; and (3) the prior art reference teaches or suggests all of the claim limitations. *Id.*; see also *In re Vaeck*, 947 F.2d 488, (Fed Cir. 1991). With respect to element (1), “[t]he mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination.” MPEP at § 2143.01. If any one of the three elements is missing, an obviousness rejection cannot be maintained.

## **3. A *Prima Facie* Case of Obviousness Has Not Been Established**

### ***a. The cited references fail to teach every element of the claimed invention***

A necessary element to establish a *prima facie* case of obviousness mandates a showing by the Action that every element of the claimed invention is disclosed by the cited references. This has not been done.

For instance, Applicants presently claim “[a] method of surface polishing of at least one principal surface of an optical article made from transparent thermoplastic material comprising the successive steps of: grinding; fine grinding; and polishing; wherein the fine grinding and/or the polishing comprises attacking the principal surface of the article with a solvent or a mixture of organic solvents of the transparent thermoplastic material.” Claim 18.

The Duchane reference, by contrast, teaches that the use of a solvent does not create a smooth surface. For instance, this reference uses acetone as a solvent on an acrylic rod and states that the surface exhibited “traverse ripples, rounded pits and lumps....” Duchane at Example 1, col. 8, lines 5-21. This solvent-induced “wrinkled appearance” was used by the Duchane collaborators to distinguish art that used solvents. *Id.* at col. 2, lines 16-19. In fact, it appears that the Duchane “invention” does not concern the use of solvents, but rather the use of a non-solvent. In fact, Duchane states “it appears that a nonsolvent is necessary to achieve a super-smooth surface.” *Id.* at col. 8, lines 18-19 (emphasis added).

Additionally, Duchane appears to indicate that not any non-solvent will work: “the proper choice of solvent-nonsolvent system is critical to achieving super-smooth surfaces.” *Id.* at Example 2, lines 33-34 (emphasis added). Use of a solvent with an inappropriate nonsolvent, such as water, leads to a surface that “appears to be undulating with numerous pits.” *Id.* at col. 5, lines 4-5.

Based on the apparent teachings of Duchane, this reference does not appear to disclose Applicants claimed element of “attacking the principal surface of the article with a solvent or a mixture of organic solvents of the transparent thermoplastic material.” In fact, this reference appears to disclose the opposite—that an attack by a solvent leads to a wrinkled surface and that only addition of an appropriate non-solvent produces a super-smooth surface.

Because every element of the claimed invention is not disclosed by the cited art, a necessary element to establish a *prima facie* case of obviousness has not been established.

***b. There is no motivation to modify or combine the teachings of Duchane***

A second element necessary to establish a *prima facie* case of obviousness requires a showing by the Action that there is a motivation to modify or combine the teachings of Duchane with the conventional steps of surface polishing. This has not been done by the Action.

As stated above, the cited reference appears to teach away from the desirability of such a combination. *See In re Gurley*, 27 F.3d 551, 553 (Fed. Cir. 1994); *see also* MPEP § 2145 (“A prior art reference that ‘teaches away’ from the claimed invention is a significant factor to be considered in determining obviousness . . .”). In addition to teaching that solvents produce a wrinkled surface appearance, Duchane further explains the inefficiencies and difficulties associated with the diamond knife grinding process (a mechanical process). *See* Duchane, col. 1, lines 34-54. This is strong evidence of a lack of a motivation to combine Applicants’ grinding step with “attacking the principal surface of the article with a solvent or a mixture of organic solvents of the transparent thermoplastic material.”

Finally, Applicants note that it is improper to use Applicants’ disclosure to support an obviousness rejection. *See* MPEP § 2142. It is well known that “[k]nowledge of applicant’s disclosure must be put aside in reaching this determination...impermissible hindsight must be avoided and the legal conclusion must be reached on the basis of the facts gleaned from the prior art.” *Id.* There does not appear to be any teachings in Duchane of the desirability to combine a grinding step with a “solvent” and use of Applicants’ specification to find such a motivation is improper.

A second element necessary to establishing a *prima facie* case of obviousness has not been established. The obviousness rejection of claims 18-34 should therefore be withdrawn.

***c. There is no reasonable expectation of success that modifying Duchane to include Applicants' claimed invention would work***

A third element necessary to establish a *prima facie* case of obviousness requires a showing of a reasonable expectation of success that modifying the teachings of Duchane to use "the successive steps of: grinding; fine grinding; and polishing" would work. Similar to the other three required elements, this has not been shown.

Applicants' specification provides surprising and unexpected data showing that the "the successive steps of: grinding; fine grinding; and polishing" works. *See, e.g.*, the specification, page 12, line 30, to page 14, line 6 and FIGS. 1-24. Duchane, by contrast, does not appear to provide any data that shows that "the successive steps of: grinding; fine grinding; and polishing" works. Duchane appears to suggest that both mechanical means and use of a solvent would not work. *See, e.g.*, Duchane, col. 1, lines 34-54. Therefore, there is no reasonable expectation of success to combine the cited art. Additionally, it would be improper to use Applicants' data to establish a reasonable expectation of success. *See* MPEP §2142.

Because the Action fails to show all of the elements necessary to establish a *prima facie* case of obviousness, the present rejection cannot be maintained. Applicants request that this rejection be withdrawn.

**D. Conclusion**

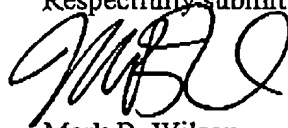
Applicants believe that the present document is a full and complete response to the Office Action dated October 6, 2004. The present case is in condition for allowance, and such favorable action is respectfully requested.

**Petition for a Three-Month Extension of Time:**

Pursuant to 37 C.F.R. § 1.136(a), Applicants petition for an extension of time of three months to and including April 6, 2005, in which to respond to the Office Action dated October 6, 2004. Pursuant to 37 C.F.R. § 1.17, please charge Fulbright & Jaworski's Deposit Account No.: 50-1212/ESSR:062US in the amount of \$1,020.00, which is the process fee for a three-month extension of time for a large entity status.

The Examiner is invited to contact the undersigned Attorney at (512) 536-3035 with any questions, comments or suggestions relating to the referenced patent application.

Respectfully submitted,



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